Teaching Quality Matters: Pedagogy and Literacy Instruction of Poor Students in Mexico

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In this chapter, I examine a topic inadequately addressed in current discussions about education in developing countries: teaching quality. I argue that teaching quality is important if schools are to help students develop capabilities of consequence to improve their life chances, especially if students cannot develop those capabilities in other institutions. I further argue that we need to think about teaching quality as a complex process, one that incorporates both normative and positive elements and that integrates what teachers do with how students make meaning and understand what their teachers do. The focus of this paper is on the relationship between teaching quality and the literacy skills of marginalized children. In supporting these arguments with empirical analysis of a nationally representative sample of sixth graders in Mexico, I address two research questions: How do variations in the literacy skills of various groups of sixth graders relate to the different circumstances they experience at home? How do their literacy skills relate to the teaching they experience in schools? I conclude that teaching quality, as reported by students, is as related to learning outcomes as parental education and other home advantages. This finding is important: While the intergenerational transmission of educational advantages within families is widely accepted as a sociological and psychological fact, the importance of instructional quality and the conceptualization of teaching quality are not as widely established or accepted.

Much contemporary rhetoric about education in developing countries focuses on the factors that influence student attendance and the attainment of more years of schooling. The Millennium Development Goals, for example, a compact to reduce poverty incidence in the developing world by the year 2015, include two goals explicitly related to education: achieving universal primary education, and promoting gender equality in primary and secondary education (United Nations, 2000).[1] These goals refer only to the targets of access to school and quantitative educational attainment as measured in years of schooling completed. Similarly, the Education For All goals established at the Jomtien and Dakar conferences identify six education goals:[2] expansion of early childhood care, universal access to free and compulsory primary

education, access to appropriate learning and life-skills programs, improvement in adult literacy rates, elimination of gender disparities, and improvement in education quality. While quality is acknowledged as a goal in the Education For All framework, it receives significantly less conceptual development than the quantitative targets of educational expansion.

The concern with educational opportunity in developing countries should go much further than the current emphasis on access and completion of a basic education. It should focus instead on how teachers can help students develop capabilities that help expand their options in life. These options refer to pathways to achieve personal goals, thus enhancing personal freedom. They include pathways to maintain health, to secure shelter, to obtain resources and use them effectively, to care for dependents, and to devote one's energies to activities consistent with personal goals and values. These capabilities increase the chances of employment, or of well-remunerated employment, and expand options in life because work and remuneration contribute to obtaining food, shelter, health, and care for others. Enhanced capabilities also provide more choice regarding what kind of work to pursue, thus increasing the odds of making choices consistent with personal goals and values. Similarly, capabilities that enhance political efficacy have similar consequences in expanding personal options. More options translate into more freedom to make choices according to personal goals and values.[3]

Attention to quality of education requires a focus on the intended purposes of instruction, as well as on the processes that help teachers achieve those purposes. I define teaching quality as this dual concern with purposes and pedagogies. Quality teaching is thus the teacher-mediated process that helps students gain the knowledge, skills, and capabilities that are of value in expanding their freedoms and increasing the opportunity to maximize health and well-being.[4] Note that I include the definition of curriculum — that is, the actual instructional goals or standards — as a component of quality, as teachers who are efficient in teaching a low-level, irrelevant, or outdated curriculum cannot be deemed to teach with quality. In this chapter I focus on a single instructional purpose: developing the literacy skills of students. Literacy is a fundamental skill, which provides the foundation for further learning and enables students to access the printed texts essential for further education, for participation in most jobs, and for informed political participation.

To examine the relationship between teaching quality and literacy skills, I analyze student achievement in a curriculum-based language test for a nationally representative sample of sixth graders in Mexico. I look at the relationships among literacy outcomes, parental literacy, and teaching quality, for both students whose parents are literate and those who are the first in their families to read. This choice of focus is intentional. The institutional dynamics of schools are best examined when they set out to do that which only they can do. For example, schools are uniquely positioned to develop literacy in societies where large segments of the population are not literate. More so than the culture of families, the culture of the school is a written culture, one in which children are exposed, many for the first time, to printed words, and are given the opportunity to learn to decode print and understand texts. The ambition to make all people literate is a relatively recent social objective. As a result, in a develop-

ing society such as Mexico, it is possible to find many children who are the first in their family to be schooled.

Mexico is unique among Organisation for Economic Co-operation and Development (OECD) countries because it has a much greater percentage of children who have parents with low levels of education, thus providing a good opportunity to study how teaching quality matters to this group. On average in all the OECD countries, 2 percent of 15-year-olds who attend school have mothers and fathers who did not go to school, and an additional 8 percent have mothers and 7 percent have fathers who completed only elementary school. In Mexico, 15 percent of students have mothers who did not go to school and 11 percent have fathers who did not. Thirty-eight percent have mothers who only completed elementary school, and 32 percent have fathers who completed only that level.[5] For comparison, in the U.S. student population, 1 percent of students have parents who did not go to school, and 2 percent have parents who only completed elementary school.

Educational Opportunity: From Access to Quality

In the aftermath of World War II, the governments that signed the Universal Declaration of Human Rights accepted that education was a basic human right in the hope that this would help create the conditions to promote global peace and security. The creation of the United Nations, and specifically of the United Nations Educational Scientific, and Cultural Organization (UNESCO), mobilized significant expansion in access to schools, especially in the developing world. In Mexico, expansion in educational enrollments was twenty fold between 1920 and 1998, and with it educational attainment expanded significantly. Those age fifty-one today have completed an average of three grades of primary school, compared with nine years of schooling completed by those age twenty-five (Reimers, 2000).

As a result of this massive educational expansion, many children throughout the world were the first in their families to gain access to school. It was believed that such access would expand their capabilities, thus expanding their life opportunities as compared with their parents and contributing to improved living conditions of the most socially marginalized. A similar faith in the power of schools to teach children living in poverty and thus to reduce poverty has been at the root of the expansion of educational access and the improvement of quality in a number of countries since the 1950s.

Governments in many parts of the world have supported education in the expectation that it would increase the chances of marginalized children. As part of the Johnson administration's U. S. War on Poverty in the 1960s, the federal government supported significant funding of initiatives to improve the educational conditions of schools serving the poorest children through Title I of the Elementary and Secondary Education Act. On another continent, the Netherlands contemplated transferring resources to schools serving working-class children through the Social Priority Policy in 1974 and the Educational Priority Policy in the 1980s (Driessen & Mulder, 1999). In the early 1980s, the French government, under François Mitterrand, supported the creation of Priority Action Zones (*zones d'éducation prioritaire*), which allowed

coordination at the local level of teachers, social workers, health officials, and police officers in delivering integrated services to poor children. The Disadvantaged Schools Program in Australia, launched in 1975, promoted better links between schools and neighboring communities, and focused on the development of basic literacy and numeracy skills. Belgium's Educational Priority Policy, launched in 1991, provided extra resources and support to targeted ethnic minority groups in elementary and middle school. In Britain, Prime Minister Tony Blair supported similar initiatives—the Educational Priority Areas — beginning in 1998. In 1993, the Mexican government initiated a bold education reform that included, among other goals, supporting the learning chances of poor children.

Education Quality Matters

In spite of government claims that education initiatives can expand the chances of the poor, there is ongoing controversy on the tradeoffs between quality and access. Hanushek (1995), for instance, has suggested that education quality is central in expanding the life chances of individuals and that efforts to expand access, therefore, should be attentive to the quality of the education provided. He explains how differences in earnings associated with different levels of educational attainment cannot be simply attributed to the gap in years of educational attainment, as the students who have attained the higher levels of education are also those who performed at the higher academic levels at the lower levels — those performing at very low levels are not able to advance to higher levels (Hanushek, 1995). In a response to Hanushek, Kremer (1995) rebuts, "We have insufficient evidence to conclude that quality should be a higher priority than ensuring that schools are available for more children" (p. 247). The debate is, indeed, ongoing. More recent efforts by development organizations to include quality as a priority are deficient in that the conceptualization of quality is poor, often equated with teacher credentials or student performance on achievement tests.

When studies have tried to examine the impact of quality directly, the results have been mixed. This is no doubt in part because of the inherent difficulties of defining and measuring quality, which lead researchers to take varied approaches and make synthesis challenging. Among the few studies looking directly at teacher practices, some have found very modest relationships between teacher practices and student achievement (Good & Brophy, 1987; Mayer, 1998). Other studies have found that even as teachers' use of higher order instruction improves student achievement, it also increases the gap between more and less advantaged students (Von Secker, 2002).

In contrast to these findings documenting the limited impact of teaching, recent research provides evidence that classroom conditions and teaching do matter. The Tennessee STAR project assessed what happened when children were assigned to different class sizes under experimental conditions. One of this study's findings is that poor and minority children benefited most from studying consistently in small classes in the first three grades (15 vs. 22 students per teacher). Smaller classes allowed teachers to use differentiated instruction (Grissmer, 1999; Nye, Hedges, & Konstantopoulos, 2002). The same study emphasized that a series of educational ex-

periences with good teachers — that is, teachers whose students achieved at higher levels — has important effects on student achievement and that poor teachers can set students back several years. Another large national longitudinal study of complete school restructuring programs found that poor children, when they receive high-quality instruction, can achieve at levels comparable to the national average. This study highlighted the importance of implementation in determining the success of these programs (Stringfield & Datnow, 1998). A recent review of fourteen studies of improvement programs found that better prepared teachers, smaller classes, more integrated schools, and more demanding curricular materials led to improvements in achievement for the lowest performing students (Orfield & DeBray, 1999). Experimental studies of the impact of specific higher-order instruction and peer collaboration find a significant influence on math achievement and engagement among the lowest-achieving students (Ginsburg-Block & Fantuzzo, 1998). Others have found that teacher practices are related to student achievement in curriculum-based mathematics tests in California, and that professional development influenced the development of these teacher practices (Cohen & Hill, 2000). Similar results on the relationship between teacher practices and student achievement have been found in science (Burkam, Lee, & Smerdon, 1997). Emerging research suggests further that instruction emphasizing higher-order thinking skills positively influences student achievement (National Center for Education Statistics, 1996; Stein & Lane, 1996). A study of the relationship between classroom instruction, teacher professional development, and the mathematics achievement of eighth-grade students finds that classroom practices have a greater effect than teacher characteristics, professional development, and student socioeconomic status (SES). The total impact of teacher quality variables is greater than that of student SES (Wenglinsky, 2002). However, most of these studies have been conducted in the United States and there is limited evidence on this topic for developing countries.

Controversial findings about the effects of teaching have initiated ongoing controversies over the power of schools to teach disadvantaged children at high levels. It is not surprising, then, that support for education reform worldwide is focused away from pedagogy and teaching quality. As a result, more than fifty years after the Universal Declaration of Human Rights was drafted, many education systems provide patently unequal opportunities for children of marginalized social backgrounds, as compared with their more advantaged peers.

Literacy Acquisition: The Role of Families and Teachers

Schools share their role in shaping the capabilities of students with families. When children first come to school, they have spent a large part of their most critical developmental years with their families. Once they are in school, families play a fundamental role in shaping their school experience. What families expect of schools, how they understand the role schools can play in helping children develop, what they believe about the institutional objectives of the school are all important factors that mediate the effects of schooling on children. For example, families decide whether to send their children to school at all, at what age to do it, how regularly to allow chil-

dren to attend school, how much time to devote to school endeavors at home, and how to support the demands schools place on children at home. In sum, families make decisions about how or whether to use their resources, their time, their social relationships, and their money for the purpose of schooling children. These decisions are to a great extent influenced by the resources that families have and by their own school experiences.

When parents or guardians or an older sibling has been schooled, families are in a better position to understand the school culture and thus to make decisions about the use of family resources to support the children's school experiences. Some of these decisions are made long before children begin school. For example, it is known that in order to develop language and literacy skills, it is helpful to engage children in conversation early on and to read to them (Snow, Burns, & Griffins, 1998). Children who grow up in such an environment have a richer vocabulary and are more likely to develop prereading skills, which makes it easier for them to acquire early literacy skills in school (Hart & Risley, 1995; Scarborough, Dorich, & Hager, 2001). Some children in fact arrive in school already reading. But not all families understand the importance of providing children with these experiences, and some lack the skills and resources to provide them; children thus arrive at school with very different levels of preparedness (Dickinson & Tabors, 2001). They continue their schooling careers with different levels of support at home. To sum up, differences at home resulting from the different ways families support the development of preliteracy and literacy skills place children at different levels of preparedness to learn to read.

Mexico offers a rich context in which to examine the role of families in supporting literacy because there is much heterogeneity in the resources and school experiences of parents. Due to the recent expansion in access to education in Mexico, many of the children who begin and complete primary education today are the first to do so in their family. One in five children has at least one parent who cannot read.[6] How does parental literacy matter? What difference does it make to the opportunities of children to become literate, especially when compared to the quality of their teachers?

Research Design

In this paper, I analyze the results of a survey administered by the Mexican Ministry of Education to a nationally representative sample of students in the sixth grade in the year 2000 (Evaluación De La Educación Primaria, 2000). The survey included a curriculum-based test and a series of questions, including aspects of the support they received at home and their perceptions of the teaching they experienced. This survey was administered to a nationally representative stratified random sample of 44,195 students. Students were first given questionnaires about family characteristics and about experiences in school, and then were administered a curriculum-based language test that was designed to cover competency in the language arts curriculum of sixth grade, the last year of the primary school cycle. The test had twenty-five items focusing on reading comprehension.

In the survey on teacher quality, students were asked to rate to what extent they understood their teacher, found the classroom rules to be clear, found the teacher helpful when they did not understand, felt they learned a lot in class, thought their teachers expected them to learn much, and to what the extent the teacher answered their questions when they did not understand. Students could rate their teachers in these dimensions as always/consistently or occasionally/never. Note that 2.6 percent of the students did not answer the question of whether their fathers could read and 3.8 did not answer the question of whether their mothers could read. That is, only 13 percent said explicitly that their mothers could not read and 8 percent said explicitly that their fathers could not read. Those children who did not answer any of these questions will be excluded from the analysis comparing first-generation students to those with literate parents. That is, I will only compare students who explicitly answered the question, and in this analysis each student was given a score equal to the number of questions answered correctly on the test, each question receiving an equal weight in the final score.

Results

The large percentage of students with at least one illiterate parent is a result of recent educational expansion, as children are now afforded opportunities to attain levels of schooling their parents did not have. Based on the school survey administered to sixth graders in 2000 on which this study is based, 85 percent of students said their mothers could read and 88 percent said their fathers could, and 79 percent said both of their parents could read. I will call those who said that at least one of their parents could not read first-generation students, because they express this intergenerational change in accessing school; that is, they are the first in their families to read. For the most part, I will not differentiate between those who have only one literate parent vs. two, or whether the parent who can read is the mother or the father.

Children in Mexico whose parents are literate are more likely to do well on the curriculum-based language test (see Table 1). Student academic performance on the curriculum-based language test increases with each additional parent who is literate, and the advantages of having two literate parents are significantly greater than those of having only one literate parent. The advantage of having one literate parent is 40 percent greater when the parent who can read is the mother. The joint effects of dual-parent literacy are even greater. Students with two illiterate parents correctly answer, on average, 9.68 questions of the 25-item language test, compared to students with one literate parent, who answer ten questions correctly, and to students with two literate parents who answer twelve questions correctly. On this test, the language advantage of students with two literate parents equals about half a standard deviation of the score distribution, which parallels the order of magnitude of differences — between one-half and three- quarters of a standard deviation — in achievement associated with socioeconomic status found elsewhere (White, 1982). The magnitude of the advantages associated with parental literacy should remain the baseline against which to assess the advantages associated with teaching quality.

A well-established finding of the research on early literacy is that exposure to print and being read to are important contributors to the development of literacy (Snow, Burns, & Griffin, 1998). Predictably, more educated parents are more likely to report that they read to their children when they were small. The number of books in the home is also clearly related to the parents' level of education. Among those who have not completed elementary education, 35 percent said they did not have books at home; among those who completed elementary schooling, this percentage declined to 27 percent; and for those with some high school, only 3 percent reported that they do not have books at home. Conversely, among the parents without primary education, the percentage who said they had more than fifty books at home was 5 percent; among those with some high school this figure was 9 percent; for high school graduates it was 16 percent; for parents with some college it was 29 percent; and for college graduates it was 45 percent. Similar support for early literacy is found in the structured environments of preschool. The likelihood of attending preschool is higher for those students whose parents are more educated. Fifty-eight percent of the children whose parents had no schooling attended preschool, compared to 71 percent of those whose parents had completed elementary school and 78 percent of those whose parents had some college.

In the analyses that follow, I examine how these differences relate to the reading skills of students. Some of these observed differences might be the paths through which parental literacy influences student literacy (e.g., reading to children early in life), others might be confounds, or competing explanations, where the true causes are associated with parental literacy (e.g., the greater propensity of children of illiterate parents to work for pay). Given that this study's principal purpose is to examine the contribution of good teaching relative to home advantages, distinguishing paths from confounds in the home advantages is not critical. Home advantages can be taken as an integral set of factors that will be left — to some extent — unpacked.

The different literacy environments first-generation students are exposed to early in life suggest that they begin school at a significant disadvantage for literacy compared to their more privileged peers. Perhaps the most promising approaches to support them have little to do with the language instruction offered by their teachers and more to do with addressing these early disadvantages. Early experiences at home and in preschool are undoubtedly critical, and their importance has been well established by other research (see Snow et al., 1998, for a review). Relatively less is known about how pedagogy matters to children's ability to achieve the language curriculum objectives.

Since reading acquisition is a staged process toward more advanced levels of literacy (Chall, 1996), I hypothesize that this progression is not solely determined by early literacy experiences. Many first-generation children do reach the sixth grade and perform on the language test at levels comparable to children of literate parents and proceed to middle school, even if they are proportionately fewer than students with literate parents. The question this paper addresses, therefore, is how much teachers in the sixth grade matter, relative to home circumstances and to social background.[7]

What differences do the literacy resources at home, time, and parental support make to the reading literacy of students completing their elementary education? To

TABLE 1
Student Achievement in Literacy Test by Parental Literacy

		Mean	*(SD)*	*N*
Number of Parents Who Read				
None		9.7	(3.9)	1,524
One		10.0	(3.8)	5,884
Two		12.1	(4.3)	34,936
Total		11.7	(4.3)	42,344
Mother	*Father*			
Illiterate	Illiterate	9.7	(3.9)	1,524
	Literate	10.0	(3.8)	3,915
	All fathers	9.9	(3.9)	5,439
Literate	Illiterate	10.0	(3.8)	1,969
	Literate	12.1	(4.3)	34,936
	All fathers	12.0	(4.3)	36,905
All	Illiterate	9.9	(3.8)	3,493
	Literate	11.9	(4.3)	38,851
TOTAL		11.7	(4.3)	42,344

Source: Evaluación De La Educación Primaria 2000, Secretaria de Educación Publica, Mexico.

examine this question, I fitted a multiple regression model predicting student performance on the language test based on the literacy of parents. I then compared it with a second model that include a predictor for the most influential home differences, such as whether there are many books at home; whether students read books, comics, magazines, or newspapers; whether their motivation for higher grades was to please parents or teachers; whether they planned to continue in school; and whether they worked regularly or occasionally (Table 2). Children who have two literate parents scored on average 1.75 points higher on the 25-point test than those whose parents are illiterate. Parental literacy explains 4 percent of the variation in student learning outcomes. Taking into account the other previously mentioned observed differences between first-generation students and their peers at home explains 10 percent of variation in student learning outcomes (Model 2 in Table 2). When examined jointly, each of these conditions proved to be significantly associated with student achievement on the test. They diminished the differences associated with parental literacy by 26 percent. However, substantial advantages remained for children of literate parents, even after taking into account the differences associated with these factors. The factor associated with the larger differences was student work, which was 30 percent greater than the advantages associated with parental literacy. Arguably, some of the examined factors could be part of the process through which literate parents support

TABLE 2

Ordinary Least Square Regression Results Predicting Student Reading Literacy by Literacy of Parents and Other Individual Differences between Students

β		*Unstandardized*	*Standardized*	*t*
Model 1: Contribution of Parental Literacy to Language Competency (n=42,343)				
(Constant)		9.68		90.1 ***
Mother reads		0.35	0.03	2.4 *
Father reads		0.30	0.02	2.4 *
Both read		1.75	0.16	11.0 ***
Adjusted R-square	0.04			
F	537 ***			
Model 2: Contribution of Parental Literacy plus Home Advantages (n=41,418)				
(Constant)		9.20		61.2 ***
Mother reads		0.06	0.00	0.5
Father reads		0.04	0.00	0.3
Both read		1.30	0.12	8.2 ***
There are many books at home		0.50	0.06	11.8 ***
Read books		0.44	0.05	–7.3 ***
Read comics		0.34	0.02	–4.1 ***
Read magazines		0.49	0.04	6.5 ***
Read news		0.30	0.02	–3.1 ***
Please parents		0.86	0.10	12.0 ***
Please teachers		0.96	0.10	12.6 ***
Plan to continue in school		1.22	0.07	14.7 ***
Works always		–2.08	–0.16	–33.0 ***
Works sometimes		–1.42	–0.15	–31.1 ***
Adjusted R-square	0.10			
F	345 ***			

Source: Evaluación De La Educación Primaria 2000, Secretaria de Educación Publica, Mexico.

***p<.001, *p<.05

their children, while others could be correlates of parental literacy and potential confounds.

From Differences at Home to Differences in School

The differences between first-generation students and their peers with literate parents do not end with the differences in the support they find at home, but extend into how they experience school and how they describe the teaching quality they experience.

First-generation students are more likely to report that what they most enjoy about coming to school is the classes, rather than practicing sports or spending time with friends. Among first-generation students, 64 percent said what they most liked was classes, 18 percent said sports, and 17 percent said being with friends. Among students with two literate parents, by contrast, 47 percent say what they most like is classes, 23 percent sports, and 30 percent to be with friends. First-generation students are as likely as other students to believe their school is in a safe locality, to feel safe in school, and to find their classrooms comfortable. They are less likely to say that their classmates bother them and just as likely to fight with other children in school. They are also as likely to say that they have good friends among classmates.

First-generation students are as likely to enjoy going to school as any other child. The percentage of children who said they enjoyed going to school was 90 percent for students with no literate parent, 91 percent for those with one literate parent, and 93 percent for those with two literate parents. Those students who enjoy attending school experience more academic success, they have higher language competency as measured by higher test scores, they are less likely to have repeated a grade, and they are more likely to understand their teachers. Among first-generation students, for instance, 92 percent of those who understand most of what their teachers explain enjoy coming to school, compared to 78 percent of those who say they hardly understand what their teachers explain.

In spite of the fact that first-generation students value their teachers more as a reason for wanting to succeed academically and to enjoy coming to school and attending their classes, they are less likely to experience effective teaching. They are less likely to understand the teacher presentations; less likely to understand the norms established by the teacher; less likely to find that their teachers help them when they don't understand; less likely to say they learn a lot in class; less likely to believe their teacher wants them to learn a lot; and less likely to find their teachers respond to their questions.

Teaching Quality and the Success of First-Generation Students

Teaching can be characterized in a number of ways. The indicators I use in this study are based on basic teaching qualities: the ability to teach in ways that students understand, to be responsive to inquisitive students, to communicate clear norms for academic work, to be helpful to one's students, to convey that one expects them to work hard, and to convey the expectation to achieve at high levels. The six domains I have identified as characterizing good teaching are the final result of all these unobserved qualities of teacher-student communication. I have chosen them because they reflect

my normative understanding of what is an appropriate learning environment for children. These basic characteristics of good teaching are consistent with teaching practices found to be associated with student learning. Jere Brophy (1999), in synthesizing decades of process-product research on teaching, identifies twelve conditions of effective teaching: a supportive classroom climate, opportunity to learn, curricular alignment, establishing learning orientations, coherent content, thoughtful discourse, practice and application, scaffolding student task engagement, strategy teaching, cooperative learning, goal oriented assessment, and high achievement expectations. The six dimensions named in this study partially reflect those conditions.

These six aspects of teaching are deceivingly simple. The range and depth of skills necessary to be understood by one's students arguably include expert or at least adequate knowledge of subject matter and how to teach it, and knowledge of one's students and their prior knowledge. Given the approach I have followed in this study, I cannot disaggregate these different pedagogical components in terms of their individual relative contributions or interactions. My level of analysis is above that level of specificity in the study of pedagogy because student reports are inferences above the direct observable data that would allow proper categorization of teacher behaviors into these pedagogical components. I am focusing on the final product of these various components — how teaching is experienced and reported by students. Students do not necessarily experience teaching in ways that allow them to distinguish these different pedagogical components, but rather as an integral experience in which all of these components are subsumed. In this sense, their reports and judgments of teaching probably integrate information from multiple interactions with their teachers and in different domains, combining aspects that reflect teacher mastery of the domain, of pedagogy, and of the nature of the teacher-student relationship. Thus, when we ask them whether they can understand their teachers or whether their teachers are helpful, we are asking for a judgment that reflects a level of inference no different than the judgments college and graduate students make when they rate their professors, or the judgments people make when evaluating the professional competency of a colleague, a subordinate, or a supervisor. We have grounds to make these inferences, but we aggregate so much information into these perceptions that it may be hard to identify all the direct data that led us to this summative judgment, or to recall these data adequately to categorize them according to pedagogical content knowledge, subject-matter competency, or pedagogical competency, which are not common in our ordinary meaning-making processes.

By relying on students' reports, I am acknowledging that good teaching has an inherently subjective element — that it is in the mind of students, personally experienced. I assume that unpacking all the elements that go into the mix of producing teaching probably involves exchanging many different sorts of information: facts and ideas, as well as feelings and emotions, verbal and nonverbal interactions, and utterances as well as silences. When a student says she understands her teacher or that she believes her teacher expects her to work hard and achieve at high levels, this is probably the result of multiple direct and subtle clues that characterize the history of interactions between this student and her teacher. It is also possible that the student's history influences how she makes sense of these interactions and the ensuing inferences

she draws about whether she can understand her teacher and whether the teacher expects her to work hard. It would be extremely challenging, perhaps impossible, to design forms of direct measurement of these many interactions that combine to lead the student to conclude she can or cannot understand her teacher, or that her teacher wants her to achieve at high levels.[8]

As mentioned earlier, students were asked to rate to what extent they understood their teacher, found the classroom rules to be clear, found the teacher helpful when they did not understand, felt they learned a lot in class, thought their teachers expected them to learn a lot, and to what the extent the teacher answered their questions when they did not understand. Students could rate their teachers in these dimensions as always/consistently or occasionally/never.

Most of these questions ask the students to evaluate the effectiveness of the teacher's direct instruction. Characterizing direct instruction is part of an established process-product tradition in studying teaching, which examines the extent to which variations in teacher practices explain variations in student achievement (Brophy & Good, 1986). Because student achievement is mediated by students' understanding, this type of questioning is the most direct way to assess teacher effectiveness as perceived by students. The use of student perceptions to characterize classroom environments is an established approach that provides robust measures of classroom environments: they pool student's experience over many lessons because they reflect student views, which mediate instruction and student achievement (Baek & Choi, 2002; Fraser, 1986).

The question of whether students believe their teachers expect them to learn addresses the process through which teacher expectations influence student achievement. Research establishes that teacher expectations have an influence on student achievement because they are communicated to students and thus influence students' self-concept, need to achieve, aspirations, and interactions with teachers (Brophy, 1983).

Teaching Quality and Literacy Skills

Differences in how students report their teachers' instruction relate to differences in their performance on the reading literacy test (Table 3). As explained earlier, "good" or quality teaching is defined as that which leads to student understanding of teacher explanations; the provision of clear classroom rules; an environment where students state their teachers help when they don't understand; where students believe they learn a lot in class; where students believe their teachers want them to learn a lot; and where students state that teachers answer their questions. The Pearson correlation coefficients between individuals' performance on the test are significantly related to individual reports of teaching practices on the six dimensions explored here.[9] On average, students who report that their teachers are good in each of these practices obtain higher test scores than those who report that their teachers are not effective. These differences are statistically significant and represent 1/5 to 2/5 of a standard deviation of the language scores. These differences associated with good teaching compare to an advantage of a half a standard deviation in the language scores associated with parental literacy.

TABLE 3

Average Differences in Student Language Ability for Students Who Describe Their Teachers Teaching Differently (Good Teaching vs. Poor Teaching).

	Language Score Mean	*(SD)*	*N*	*F*	*Gap in means*	*(%)*
I understand the teacher when she explains something						
No	10.9	(4.0)	20,245	1095 ***	1.3	(12)
Yes	12.3	(4.4)	23,950			
Total	11.6	(4.3)	44,195			
Classroom rules are clear						
No	11.2	(4.2)	22,947	513 ***	0.9	(8)
Yes	12.1	(4.4)	21,248			
Total	11.6	(4.3)	44,195			
My teacher helps when I don't understand						
No	11.0	(4.2)	15,758	640 ***	1.1	(10)
Yes	12.0	(4.3)	28,437			
Total	11.6	(4.3)	44,195			
I learn a lot in class						
No	11.1	(4.2)	14,840	418 ***	0.9	(8)
Yes	11.9	(4.3)	29,355			
Total	11.6	(4.3)	44,195			
My teacher wants me to learn a lot						
No	10.2	(4.2)	5,954	764 ***	1.6	(16)
Yes	11.9	(4.3)	38,241			
Total	11.6	(4.3)	44,195			
My teacher answers my questions						
No	11.1	(4.2)	19,077	565 ***	1.0	(9)
Yes	12.1	(4.3)	25,118			
Total	11.6	(4.3)	44,195			
Mother reads						
No	9.9	(3.9)	5,559	1174 ***	2.1	(21)
Yes	12.0	(4.3)	37,474			
Total	11.7	(4.3)	43,033			
Father reads						
No	9.9	(3.8)	3,510	708 ***	2.0	(17)
Yes	11.9	(4.3)	38,994			
Total	11.7	(4.3)	42,504			
Both parents read						
No	9.9	(3.8)	7,545	1668 ***	2.2	(22)
Yes	12.1	(4.3)	34,936			
Total	11.7	(4.3)	42,481			
Number of parents who read						
None	9.7	(3.9)	1,524	806 ***	2.4	(25)
One	10.0	(3.8)	5,884			
Two	12.1	(4.3)	34,936			
Total	11.7	(4.3)	42,344			

Source: Evaluación De La Educación Primaria 2000, Secretaria de Educación Publica, Mexico.

***p<.001

Quality Teaching, Home Advantages, and Reading Skills

The joint effect of these six student descriptions of their teachers on their language test performance is greater than the joint effect of all the individual differences examined earlier, as shown in Table 4.[10] In other words, a child whose teacher is reported to be of high quality — defined by a student report indicating these six domains — can have better reading skills than a child whose teacher is not reported as being of high quality and a child who has all the home advantages described earlier. These differences remain when examined separately for first-generation students and for students with two literate parents. This analysis confirms that there are clear advantages to student literacy associated with how students describe their teachers' effectiveness.

To contrast the relative contributions of good teaching and parental literacy, I compare the reading literacy of first-generation students with those with two literate parents, based on whether they characterize their teachers as good or bad in the same series of quality indicators: students say they understand their teachers; the teacher rules are clear; their teachers help when they don't understand; their teachers want them to learn a lot; and their teacher answers their questions. I characterized students exposed to "good teaching" as those who gave positive characterizations of their teachers in the six indicators and "bad teaching" as those who gave negative characterization of their teachers in the six indicators. Notice that these are somewhat extreme cases, as most students respond to these six questions with some combinations of positive and negative answers. The results (Table 5) show that there is an advantage equal to two thirds of a standard deviation associated with good teaching for first-generation students, and an advantage of a third of a standard deviation associated with good teaching for students with literate parents. Furthermore, first-generation students who experience good teaching have a small advantage over those students with literate parents who experience poor teaching. The likelihood that this event will happen, however, is very rare, as first-generation students are three times more likely to experience good teaching than poor teaching, while students with literate parents are ten times more likely. That is, the odds that students will experience good teaching are more than three times greater for students with literate parents than for first-generation students. Exposure to poor teaching for first-generation students worsens inequalities in reading literacy significantly, as students with literate parents and good teachers have language scores a full standard deviation higher than first-generation students with poor teachers. Good teaching slightly reduces the gap associated with parental literacy, by 1/5 of a standard deviation.

There are admittedly difficulties with using student characterizations of teaching as indicators of teaching quality. To some extent, some student responses may be influenced by students' literacy skills, and are thus not an independent assessment of the pedagogy they experience. The relationship between pedagogy and literacy may also be one of simultaneous causation and successive feedback loops, rather than unidirectional. That is, teachers may be more responsive to the students when students do well, do homework, and have parents who are responsive. As teachers are more responsive, students continue to do better, which further causes the teachers to be more responsive. Alternatively, when students are doing poorly they may perceive that the

TABLE 4

Ordinary Least Square Regression Results Predicting Reading Literacy by Student Characteristics and Good Teaching (n= 41,143)

β	*Unstandardized*	*Standardized*	*t*	
Model 1: Contribution of Parental Literacy, Home Advantages and Good Teaching				
Constant	8.98		60.62	***
Mother reads	0.06	0.00	0.44	
Father reads	0.04	0.00	0.30	
Both parents read	1.12	0.10	7.20	***
There are many books at home	0.41	0.05	9.74	***
Read books	0.44	0.08	11.71	***
Read comics	0.34	0.04	6.51	***
Read news	0.44	0.02	4.63	***
Read magazines	0.31	0.03	4.13	***
Please parents	0.11	0.01	2.47	*
Please teachers	0.91	0.06	12.09	***
Plan to continue in school	0.96	0.06	11.65	***
Works always	–1.96	–0.15	–31.43	***
Works sometimes	–1.28	–0.14	–28.29	***
I understand the teacher	0.86	0.10	20.73	***
The teachers rules are clear	0.37	0.04	9.09	***
My teacher helps when I don't understand	0.36	0.04	8.11	***
I learn a lot in class	0.25	0.03	5.65	***
My teacher wants me to learn a lot	0.56	0.04	8.50	***
My teacher answers my questions	0.34	0.04	8.03	***
Adjusted R-square	0.12			
F	306 ***			

Source: Evaluación De La Educación Primaria 2000, Secretaria de Educación Publica, Mexico.

***p<.001, *p<.05

teacher expects them to do poorly, a perceived expectation manifested in low grades. In other words, student performance influences teacher grading, which influences a student's perception of how their teacher sees them, which further influences student performance. Student characterizations of the teaching they experience do not allow us to model the chain of events linking those characterizations to what teachers do. Perhaps it is impossible to model these relationships with a series of linear, one-way paths. However, whether they are the results of linear systems of causation or of dynamic systems with feedback loops changing over time, these characterizations reflect

TABLE 5
Average Differences of Student Achievement for Students Experiencing Good and Bad Teaching by Parental Literacy

	N	*Minimum*	*Maximum*	*Mean*	*(SD)*
First-generation students					
With good teaching	788	0	26	11	(4.0)
With bad teaching	265	0	25	9	(3.5)
Students with literate parents					
With good teaching	5,851	0	26	13	(4.4)
With bad teaching	572	0	24	11	(4.0)

	Difference (%)	*Odds*
Good teaching advantage		
For first-generation students	29.54	2.97
For students with literate parents	24.25	10.23
First-generation with good teaching vs. Student with literate parents with bad teaching	3.2	
First-generation with bad teaching vs. Student with Literate parents with good teaching	–35.88	
Parental literacy advantage		
With good teaching	20.4	
With bad teaching	25.52	

Source: Evaluación De La Educación Primaria 2000, Secretaria de Educación Publica, Mexico.

nonetheless how students experience teaching and account for perceived teaching quality. As such, this information is valuable in its own right from a perspective that values students' thoughts, feelings, and perceptions as important aspects of the teaching-learning process.

Conclusion

In this article I have shown that first-generation students in Mexico are capable of equally high levels of literacy performance as their peers whose parents are literate. However, many first-generation students attain lower levels of achievement on a language test. How students describe their teachers is a greater predictor of literacy competency than the home advantages represented by parental literacy.

Student-described teacher practices have a significant and consistent relationship with student literacy competencies. Students, including first-generation students, describe a number of teachers as effective. When teachers are not characterized as consistently effective, it is systematically first-generation students who describe their

teachers as least effective. The advantages associated with simple good teaching practices, such as replying to student questions, holding high expectations for students' work, establishing clear classroom rules, and providing explanations that students can understand, are larger than the advantages associated with parental literacy. Given that first-generation students are already more inclined to see their teachers as their motive to want to succeed academically, this compounds the powerful associations between good teaching and student success.

This paper has focused primarily on examining differences in how sixth-grade Mexican students characterize their teachers' teaching. The differences that students experience are important in and of themselves, irrespective of how they relate to conditions observed by others. Students make their own meaning from their experiences with teachers — about how responsive teachers are to them and about what expectations they have for their own academic success. By definition, they are more likely to be on their own when constructing these meanings than their peers who are not the first in their families to go to school. First-generation students have to translate school culture for their parents, whereas those whose parents have been to school can count on others to provide a perspective on the significance of daily school experiences.

The test of good teaching is partially in the minds of students — in whether students judge it to be good — even if their subjective rules or preferences differ from those of teachers. One can expect a certain amount of variability in how different students will judge their teachers' quality. As long as this variability is not systematically related to the student's social circumstances, this is interesting but of little practical significance. However, if the students of more humble social origins are systematically less likely to perceive their teachers as good, this is problematic. The problem is not resolved by blaming it on students, or by arguing, for example, that they are less prepared to appreciate the "true" qualities of good teaching than those whose parents are more educated, or suggesting that the different perceptions really are a reflection of how competent both groups of students are.

The implication of these findings is that there is as much, if not more, promise in examining how variations of teaching quality matter to the development of student competencies, as in examining how those competencies relate to students' backgrounds. Remembering that teaching matters is important at a time when too much of the attention of development institutions and governments in developing countries is narrowly focused on getting children to school. Absent this focus, much of the expansion in access may result in getting children to schools where they will be poorly taught and thus miss the opportunity to develop the capabilities that would expand their freedoms.

Notes

1. There are eight Millennium Development Goals: (1) eradicate extreme poverty and hunger; (2) achieve universal primary education; (3) promote gender equality and empower women; (4) reduce child mortality; (5) improve maternal health; (6) combat HIV/AIDS, malaria, and other diseases; (7) ensure environmental sustainability; and (8) develop a global partnership for development.
2. The Jomtien Conference was a global initiative to promote educational development supported by the United Nations and other development agencies and governments. The initiative was

launched at a world conference in Jomtien, Thailand, in 1990. The Dakar Conference, a decade later, took stock of the progress achieved during the decade and restated the goals of Education For All.

3. I follow here Sen's (2000) discussion of development as freedom: "In analyzing social justice, there is a strong case for judging individual advantage in terms of the capabilities that a person has, that is, the substantive freedoms he or she enjoys to lead the kind of life he or she has reason to value. In this perspective, poverty must be seen as the deprivation of basic capabilities rather than merely as lowness of incomes" (p. 87).
4. Again, I am following Sen's (2000) discussion of development as freedom: "Freedom… involves both the processes that allow freedom of actions and decisions, and the actual opportunities that people have, given their personal and social circumstances. Unfreedom can arise either through inadequate processes (such as the violation of voting privileges or other political or civil rights) or through inadequate opportunities that some people have for achieving what they minimally would like to achieve (including the absence of such elementary opportunities as the capability to escape premature mortality or preventable morbidity or involuntary starvation)" (p.17). See Sen, 2000 for further discussion of the idea of development as freedom.
5. Note that in Mexico 7 percent of students drop out of school during elementary education, an additional 16 percent drop out at the end of the primary cycle and 30 percent during secondary education (Economic Commission for Latin America and the Caribbean, 2002, p. 106). Since the dropouts are disproportionately from low-income backgrounds, these figures based on students enrolled in secondary education underestimate the number of students whose parents have low levels of education.
6. These figures are from the survey I am analyzing in this paper.
7. Admittedly by focusing on the sixth-grade teachers, I have set a stringent design to test the contributions of teaching: (1) because the role of early literacy experiences is unaccounted for, and (2) because the cumulative impact of literacy instruction in school, provided by teachers in grades K–5, is also unaccounted for. This design makes it less likely to find differences in literacy skills associated with teaching.
8. Alternative forms of direct measurement of these interactions can of course study components that can be prespecified for limited periods of time. These approaches, while valuable and useful to complement students' views, have limitations of their own if presented as valid characterizations of the relationship between teachers and students as experienced by students.
9. Because students were first given the questionnaire and then tested, it is not possible that their perception of performance on the test influenced their responses to the questionnaire.
10. I am comparing the sum of the standardized coefficients of these factors to the sum of the standardized coefficients of the factors accounting for individual differences in a multiple regression that includes parental literacy, home literacy practices, and teaching quality variables presented in Table 4.

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